

Alon Ascoli

List of Publications by Year in descending order

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docs citations

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times ranked

1244
citing authors

#	ARTICLE	IF	CITATIONS
1	A Compact and Continuous Reformulation of the Strachan TaO _x Memristor Model With Improved Numerical Stability. IEEE Transactions on Circuits and Systems I: Regular Papers, 2022, 69, 1266-1277.	5.4	8
2	Edge of Chaos Theory Resolves Smale Paradox. IEEE Transactions on Circuits and Systems I: Regular Papers, 2022, 69, 1252-1265.	5.4	28
3	Toward Simplified Physics-Based Memristor Modeling of Valence Change Mechanism Devices. IEEE Transactions on Circuits and Systems II: Express Briefs, 2022, 69, 2473-2477.	3.0	11
4	Graph Coloring via Locally-Active Memristor Oscillatory Networks. Journal of Low Power Electronics and Applications, 2022, 12, 22.	2.0	14
5	Pattern Formation in an M-CNN Structure Utilizing a Locally Active NbO _x Memristor. , 2022, , 79-101.		3
6	On Local Activity and Edge of Chaos in a NaMLab Memristor. Frontiers in Neuroscience, 2021, 15, 651452.	2.8	63
7	Analytical Investigation of Pattern Formation in an M-CNN with Locally Active NbO _x Memristors. , 2021, , .		5
8	System-Theoretic Methods for Designing Bio-Inspired Mem-Computing Memristor Cellular Nonlinear Networks. Frontiers in Nanotechnology, 2021, 3, .	4.8	12
9	Control Strategies to Optimize Graph Coloring via M-CNNs with Locally-Active NbO _x Memristors. , 2021, , .		0
10	Improved Vertex Coloring With NbO _x Memristor-Based Oscillatory Networks. IEEE Transactions on Circuits and Systems I: Regular Papers, 2021, 68, 2082-2095.	5.4	18
11	Mathematical Investigation of Static Pattern Formation with a Locally Active Memristor Model. , 2021, , .		4
12	Exploration of Edge of Chaos in Bio-Inspired Devices, Circuits, and Systems. , 2021, , .		1
13	Optimization and Application of Niobium Oxide based Memristive NDR devices. , 2021, , .		0
14	How to Build a Memristive Integrate-and-Fire Model for Spiking Neuronal Signal Generation. IEEE Transactions on Circuits and Systems I: Regular Papers, 2021, 68, 4837-4850.	5.4	30
15	NbO ₂ -Mott Memristor: A Circuit- Theoretic Investigation. IEEE Transactions on Circuits and Systems I: Regular Papers, 2021, 68, 4979-4992.	5.4	27
16	System Theory Enables a Deep Exploration of ReRAM Cells' Switching Phenomena. , 2021, , .		0
17	Simscape and LTspice models of HP ideal generic memristor based on finite closed form solution for window functions. , 2021, , .		2
18	Theoretical Foundations of Memristor Cellular Nonlinear Networks: Memcomputing With Bistable-Like Memristors. IEEE Transactions on Circuits and Systems I: Regular Papers, 2020, 67, 502-515.	5.4	49

#	ARTICLE	IF	CITATIONS
19	Theoretical Foundations of Memristor Cellular Nonlinear Networks: Stability Analysis With Dynamic Memristors. IEEE Transactions on Circuits and Systems I: Regular Papers, 2020, 67, 1389-1401.	5.4	46
20	A Simplified Model for a NbO ₂ Mott Memristor Physical Realization. , 2020, , .		16
21	Image Processing by Cellular Memcomputing Structures. , 2020, , .		0
22	Implementation of Logical and Memory Functions with Memristor Cellular Nonlinear Networks. , 2020, , .		1
23	Image Mem-Processing Bio-Inspired Cellular Arrays with Bistable and Analogue Dynamic Memristors. , 2020, , .		0
24	Theoretical Foundations of Memristor Cellular Nonlinear Networks: A DRM ₂ -Based Method to Design Memcomputers With Dynamic Memristors. IEEE Transactions on Circuits and Systems I: Regular Papers, 2020, 67, 2753-2766.	5.4	44
25	Multi-tasking and Memcomputing with Memristor Cellular Nonlinear Networks. , 2020, , .		3
26	Memristor and Memristor Circuit Modelling Based on Methods of Nonlinear System Theory. PoliTO Springer Series, 2019, , 99-132.	0.5	3
27	Multiple slopes in the negative differential resistance region of NbO _x -based threshold switches. Journal Physics D: Applied Physics, 2019, 52, 325104.	2.8	19
28	Improvement of NbO _x -based threshold switching devices by implementing multilayer stacks. Semiconductor Science and Technology, 2019, 34, 075005.	2.0	12
29	Pattern Formation With Locally Active S-Type NbO _x Memristors. IEEE Transactions on Circuits and Systems I: Regular Papers, 2019, 66, 2627-2638.	5.4	37
30	Theory of Cellular Nonlinear Networks with Analogue Dynamic Memristors. , 2019, , .		1
31	A Complete Analytical Solution for the On and Off Dynamic Equations of a TaO Memristor. IEEE Transactions on Circuits and Systems II: Express Briefs, 2019, 66, 682-686.	3.0	15
32	Memristor-enhanced humanoid robot control system " Part II: Circuit theoretic model and performance analysis. International Journal of Circuit Theory and Applications, 2018, 46, 184-220.	2.0	17
33	Memristor-enhanced humanoid robot control system " Part I: Theory behind the novel memcomputing paradigm. International Journal of Circuit Theory and Applications, 2018, 46, 155-183.	2.0	20
34	Ultrasensitive detection of Ebola matrix protein in a memristor mode. Nano Research, 2018, 11, 1057-1068.	10.4	43
35	About v-i Pinched Hysteresis of Some Non-Memristive Systems. Mathematical Problems in Engineering, 2018, 2018, 1-10.	1.1	10
36	Exploring the Dynamics of Real-World Memristors on the Basis of Circuit Theoretic Model Predictions. IEEE Circuits and Systems Magazine, 2018, 18, 48-76.	2.3	17

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37	Analysis of memristors with nonlinear memristance versus state maps. International Journal of Circuit Theory and Applications, 2017, 45, 1814-1832.	2.0	7
38	Memristor Emulators: A Note on Modeling. Studies in Computational Intelligence, 2017, , 1-17.	0.9	4
39	Continuous and Differentiable Approximation of a TaO Memristor Model for Robust Numerical Simulations. Springer Proceedings in Physics, 2017, , 61-69.	0.2	6
40	Closed-form analytical solution for on-switching dynamics in a TaO memristor. Electronics Letters, 2017, 53, 1125-1126.	1.0	12
41	Towards an analytical description of a TaO memristor. , 2017, , .		0
42	Complex dynamics in circuits with memristors. , 2017, , .		3
43	Gap engineering for improved control of memristor nanosensors. , 2017, , .		0
44	Analysis of V _{th} variability in NbO _x -based threshold switches. , 2016, , .		4
45	History Erase Effect in a Non-Volatile Memristor. IEEE Transactions on Circuits and Systems I: Regular Papers, 2016, 63, 389-400.	5.4	60
46	The First Ever Real Bistable Memristors—Part II: Design and Analysis of a Local Fading Memory System. IEEE Transactions on Circuits and Systems II: Express Briefs, 2016, 63, 1096-1100.	3.0	21
47	A class of versatile circuits, made up of standard electrical components, are memristors. International Journal of Circuit Theory and Applications, 2016, 44, 127-146.	2.0	44
48	The First Ever Real Bistable Memristors—Part I: Theoretical Insights on Local Fading Memory. IEEE Transactions on Circuits and Systems II: Express Briefs, 2016, 63, 1091-1095.	3.0	25
49	Generalized boundary condition memristor model. International Journal of Circuit Theory and Applications, 2016, 44, 60-84.	2.0	59
50	The Art of Finding Accurate Memristor Model Solutions. IEEE Journal on Emerging and Selected Topics in Circuits and Systems, 2015, 5, 133-142.	3.6	65
51	Class of memristors from cascade of static nonlinear two ports with dynamic one-ports. , 2015, , .		0
52	Synchronization properties of a bio-inspired neural network. , 2015, , .		1
53	Robust Simulation of a TaO Memristor Model. Radioengineering, 2015, 24, 384-392.	0.6	29
54	Synchronization conditions in simple memristor neural networks. Journal of the Franklin Institute, 2015, 352, 3196-3220.	3.4	30

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55	Nonlinear Dynamics of a Locally-Active Memristor. IEEE Transactions on Circuits and Systems I: Regular Papers, 2015, 62, 1165-1174.	5.4	139
56	Complex behavior in memristor circuits based on static nonlinear two-ports and dynamic bipole. , 2015, , .		2
57	Physical model of threshold switching in NbO ₂ based memristors. RSC Advances, 2015, 5, 102318-102322.	3.6	125
58	Unfolding the local activity of a memristor. , 2014, , .		12
59	Unfolding the Threshold Switching Behavior of a Memristor. Communications in Computer and Information Science, 2014, , 156-164.	0.5	7
60	Emergence of synchronization in bio-inspired memristor-coupled oscillatory cells. Nonlinear Theory and Its Applications IEICE, 2014, 5, 292-308.	0.6	2
61	Application of the Volterra Series Paradigm to Memristive Systems. , 2014, , 163-191.		13
62	Cellular Nonlinear Networks with Memristor Synapses. , 2014, , 267-291.		7
63	Memristor-based neural circuits. , 2013, , .		9
64	Insights on memristor modeling. , 2013, , .		2
65	PSpice switch-based versatile memristor model. , 2013, , .		18
66	Memristor circuit investigation through a new tutorial toolbox. , 2013, , .		7
67	Memristor-based filtering applications. , 2013, , .		54
68	Memristor Model Comparison. IEEE Circuits and Systems Magazine, 2013, 13, 89-105.	2.3	158
69	Complex dynamics in neuromorphic memristor circuits. , 2013, , .		4
70	MEMRISTOR MODELS IN A CHAOTIC NEURAL CIRCUIT. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2013, 23, 1350052.	1.7	23
71	Memristive diode bridge with LCR filter. Electronics Letters, 2012, 48, 824.	1.0	162
72	Modeling dynamics of memristive nano-structures. , 2012, , .		2

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73	A novel elementary memristive system. , 2012, , .		1
74	Memristor based-elements for chaotic circuits. Nonlinear Theory and Its Applications IEICE, 2012, 3, 336-356.	0.6	9
75	Mathematical models and circuit implementations of memristive systems. , 2012, , .		7
76	A Boundary Condition-Based Approach to the Modeling of Memristor Nanostructures. IEEE Transactions on Circuits and Systems I: Regular Papers, 2012, 59, 2713-2726.	5.4	136
77	Memristor models for chaotic neural circuits. , 2012, , .		8
78	Analysis of current-voltage characteristics for memristive elements in pattern recognition systems. International Journal of Circuit Theory and Applications, 2012, 40, 1277-1320.	2.0	83
79	Nonlinear Dynamics of Memristor Oscillators. IEEE Transactions on Circuits and Systems I: Regular Papers, 2011, 58, 1323-1336.	5.4	289
80	Modelling the dynamics of log-domain circuits. International Journal of Circuit Theory and Applications, 2007, 35, 33-70.	2.0	22
81	On the Chaotic Behavior of a Third-Order Log-Domain Filter. Nonlinear Dynamics, 2006, 44, 45-54.	5.2	1
82	Modeling the effects of BJT base currents on the dynamics of a log-domain filter. , 0, , .		0
83	Pattern Formation in a RD-MCNN with Locally Active Memristors. , 0, , .		1